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TAKERU YOSHINO

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3061

22852

7590

08/27/2002

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicant(s)

09/380,781

Applicant(s)

YOSHINO ET AL.

Examiner

Andrew Schechter

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 3-19 and 22-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-11 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 3-6, 12, 13, 18, 19, 22, 23 and 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7,11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed 2 July 2002 have been fully considered but they are not persuasive.

The amendments to the claims overcome the previous rejections under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, which are therefore withdrawn. Claims 7-11 and 14-17 are therefore allowable.

The applicant argues that in *Sato*, "only the dummy electrode is provided, and the slit is not provided on the electrode" [p.12]. The examiner does not agree; Fig. 1 of *Sato* shows a dummy electrode [5] with a plurality of slits. Dummy electrodes [5, 6] are shorted to electrodes [2, 1] respectively, and without the slits there would be leakage current between the electrodes and the device would not work properly. The previous rejections in view of *Sato* are therefore sustained.

The applicant argues that *Shimada* does not disclose slits "in a peripheral area outside of the image area and in which the light-cutting film is superposed with the sealing member" [p. 13], arguing that the sealing resin is shown only in Fig. 15 and does not disclose "the relationship of that resin to the interrupted light shielding region 220 shown only in Figs. 12 and 14" [p. 13]. This is not persuasive. Figs. 12, 14, and 15 are used in *Shimada* to discuss Example 7 [cols. 17-20] of that invention; Fig. 15 clearly shows that the resin sealing member [217] is superposed with the light cutting film [220], and Fig. 12 clearly shows that the slits extend the entire length of the light cutting film.

*Shimada* does disclose the relationship of the resin to the interrupted light shielding region, so the limitations of claim 5 are met, and the previous rejections in view of *Shimada* are sustained.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 23, 3, 4, 22, 26, and 28 are rejected under 35 U.S.C. 102(a) as being anticipated by *Sato et al.*, Japanese Patent No. 06-051332A.

Considering the limitations of claim 23, *Sato* discloses a liquid crystal apparatus comprising: first and second substrates [8 and 9], first and second electrodes [1 and 2], a sealing member [4] with conductive spacers [abstract], a drive lead electrode [2], and a dummy electrode [5] wherein the dummy electrode is divided by a plurality of slits [Fig. 1]. Claim 23 is therefore anticipated by *Sato*.

The conductive spacers in *Sato* are inherently smaller than the width of the slits dividing the dummy electrode [else the device would not work], and the dummy electrode is parallel to and along the side of the sealing member. Claims 3 and 4 are therefore anticipated by *Sato*.

Considering claim 22, the device of *Sato* has a dummy electrode arranged opposite the drive electrode, arranged along an elongated direction (vertical in the figure) of a non-image electrode [the non-image part of the electrode labeled 1], has slits across the elongated directed, which prevent current flowing. Claim 22 is therefore anticipated by *Sato*.

Considering the new claim 26, *Sato* discloses all the claimed features, including the dummy electrode comprising a plurality of island portions with at least two of the island portions (one on either side of the display) provided oppositely to one of the said plurality of drive electrodes. They are made as recited in claim 28. Claims 26 and 28 are therefore anticipated. (The examiner believes that the applicant has in mind for claim 26 something akin to the structure in *Hayakawa et al.*, U.S. Patent No. 5,838,411, but the present claim language does not distinguish over the prior art of record.)

4. Claims 5, 6, and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by *Shimada et al.*, U.S. Patent No. 6,268,895.

*Shimada* discloses [see Fig. 10-15, for instance] an LCD with a leak current preventing function, comprising first and second transparent substrates [203, 213], first and second transparent electrodes for image [212, 215], sealing member [217], conductive light-cutting film [220] in both the image area and the peripheral portion

outside the image area, and separation slits [see Figs. 12 and 14, and col. 19, lines 20-48] in the peripheral area outside the image area, where the film superposes the sealing member. Claim 5 is therefore anticipated.

The width of the slit is less than the gate line spacing, so it is far less than  $3/10$  the width of the wall of the sealing member. Claim 6 is therefore anticipated as well.

Considering the new claim 26, *Shimada* discloses all the claimed features, including the dummy electrode comprising a plurality of island portions with at least two of the island portions provided oppositely to one of the said plurality of drive electrodes (Fig. 12 shows two dummy electrodes overlap each drive electrode). They are elongated, positioned, and made as recited in claims 27 and 28. Claims 26-28 are therefore anticipated. (The examiner believes that the applicant has in mind for claim 26 something akin to the structure in *Hayakawa et al.*, U.S. Patent No. 5,838,411, but the present claim language does not distinguish over the prior art of record.)

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12, 13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sato* as applied to claim 1 above, and further in view of *Shimada*.

Claim 12 adds to claim 23 the limitations of claim 5 relating to the conductive light-cutting film superposed with the sealing member and having slits. *Sato* does not appear to teach this (the examiner thanks the applicant for the translation of *Sato*, and believes that one of ordinary skill in the art would assume that the electrodes 5 and 6 are made of the same layer as the transparent image electrodes 1 and 2, so they are not "light-cutting"). *Sato* does teach the limitations of claims 18 and 19, as discussed above.

As discussed above, *Shimada* does teach these additional limitations of claim 5. It would be obvious to one of ordinary skill in the art to combine the light-shielding film of *Shimada* with the device of *Sato*, motivated among other reasons by the desire to prevent light leakage from the periphery while reducing fabrication costs as taught by *Shimada*. Claims 12, 13, 18, and 19 are therefore unpatentable.

#### ***Allowable Subject Matter***

7. Claims 7-11 and 14-17 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

Claim 7 adds to claim 5 the limitation that "the light cutting film being superposed by the first and second transparent imaging electrodes and with the sealing member in the peripheral area". Since *Shimada* discloses an active-matrix LCD, the transparent electrodes for image (also called "imaging electrodes" - the examiner understands these to be the transparent electrodes which cross to form the pixels in a passive matrix

device, and to be the pixel electrodes in an active matrix device) do not overlap the sealing material, so it does not meet this additional limitation. *Sato*, on the other hand, does not disclose the light-cutting film recited in claims 5 and 7. Since the prior art of record does not teach this combination of features, claims 7-9 are allowed.

Claim 10 adds to claim 5 the limitation that "the light-cutting film has a separation slit for dividing the light-cutting film into a plurality of portions at a slightly inward position from the sealing member"; this "slightly inward position" of the slit is not disclosed by *Shimada* or the other prior art of record, so claims 10 and 11 are allowed.

Claims 14 and 16 contain the limitations of claims 7 and 10 respectively, so claims 14-17 are allowed.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (703) 306-5801. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Sikes can be reached on (703) 308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-4711 for regular communications and (703) 746-4711 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Andrew Schechter  
August 23, 2002



TOANTON  
PRIMARY EXAMINER